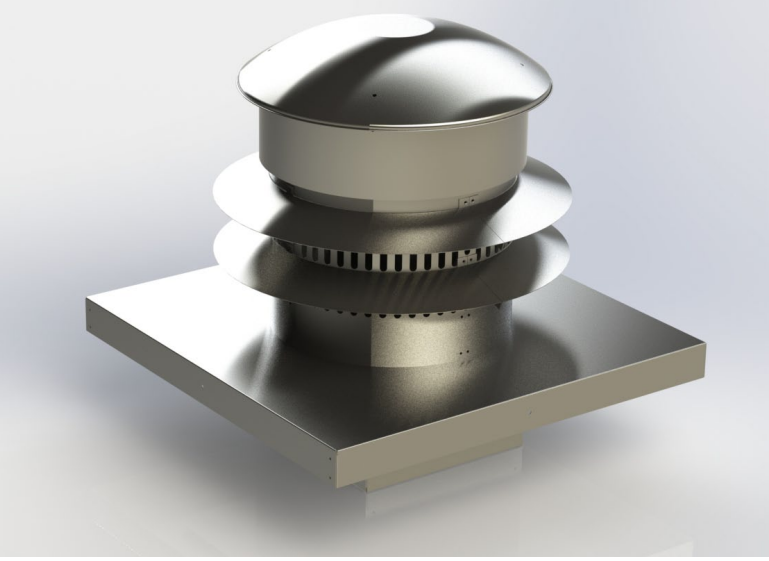
Installation & Maintenance Manual

MONTIGO®
the art of fireplaces



PVVEX58-300 & PVVEX510-300

5/8 and 5/10 External Roof Power Vent

⚠ WARNING

If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.

⚠ WARNING

Do not store or use gasoline or any other flammable vapors and liquids in the vicinity of this or any other appliance.

⚠ CAUTION

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

NOTICE

Installer: Leave this manual with the appliance.
Consumer: Retain this manual for future reference.

DANGER

IF YOU SMELL GAS

- ⚠ Do not try to light any appliance.
- ⚠ Do not touch any electrical switch; do not use any phone in your building.
- ⚠ Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- ⚠ If you cannot reach your gas supplier, call the fire department.

NOTICE

This power vent is approved for use with Montigo fireplaces only and is certified to ANSI Z21.50 / CSA 2.22 vented gas fireplace standard along with the fireplace.

NOTICE

PVVEX58-300 power vent is approved for use with Montigo R320, R320-ST, R420, R420-ST, and RP620.

NOTICE

PVVEX510-300 power vent is approved for use with Montigo R520, R520-ST, R620-ST, R720, and R820.

Safety Alert Key

⚠ DANGER

Indicates a hazardous situation which, if not avoided, WILL result in death or serious injury or property damage.

⚠ WARNING

Indicates a hazardous situation which, if not avoided, COULD result in death or serious injury or property damage.

⚠ CAUTION

Indicates a hazardous situation which, if not avoided, WILL result in minor or moderate injury.

NOTICE

Addresses practices that are important, but not related to personal injury

Introduction

Specifications

Pipe Dimensions PVVEX58-300 ..... 5"/8"

Pipe Dimensions PVVEX510-300 ..... 5"/10"

Maximum Airflow: ..... 300 CFM

Speed: ..... 2700 RPM

Power: ..... Connect to fireplace control box
..... Refer to fireplace rating plate

Before Your Begin

General Information

This installation guide covers installation of the External Power Vent System only. This system is designed to allow installation of gas fireplaces that cannot be done with a standard Direct Vent gas fireplace installation. Only for use on R-Series, R-Series See-Through and RP-Series.

ONLY USE WITH APPROVED FIREPLACES - see fireplace installation manual.

Read through the fireplace's installation & maintenance manual, as it must also be adhered to.

Power Cord Harnesses:
EPVH10 - 10 foot power cord and harness
EPVH20 - 20 foot power cord and harness
EPVH30 - 30 foot power cord and harness
EPVH40 - 40 foot power cord and harness
EPVH50 - 50 foot power cord and harness
EPVH60 - 60 foot power cord and harness
EPVH70 - 70 foot power cord and harness
EPVH80 - 80 foot power cord and harness
EPVH90 - 90 foot power cord and harness
EPVH100 -100 foot power cord and harness

For vent configurations and power vent locations, refer to fireplace manual.

NOTICE

You must read and understand this manual prior to installation, operation or troubleshooiting this applance. Please retain this owner's manual for future reference and maintenance.

⚠ CAUTION

When cold air enters the warmer building interior, primarily at the air intake end, condensation may occur on the exterior of the pipe. To limit this condensation, install insulation over the last twenty feet of pipe. Also, by sloping the last 20' - 0' of pipe downward towards the exterior of the building will help eliminate any condensations problems, should they occur. Ensure the termination is securely fastened and sealed to the pipe. Fasten the termination to the exterior of the building with water tight sealant and the appropriate fasteners.

Introduction

PVVEX58-300 Product Dimensions

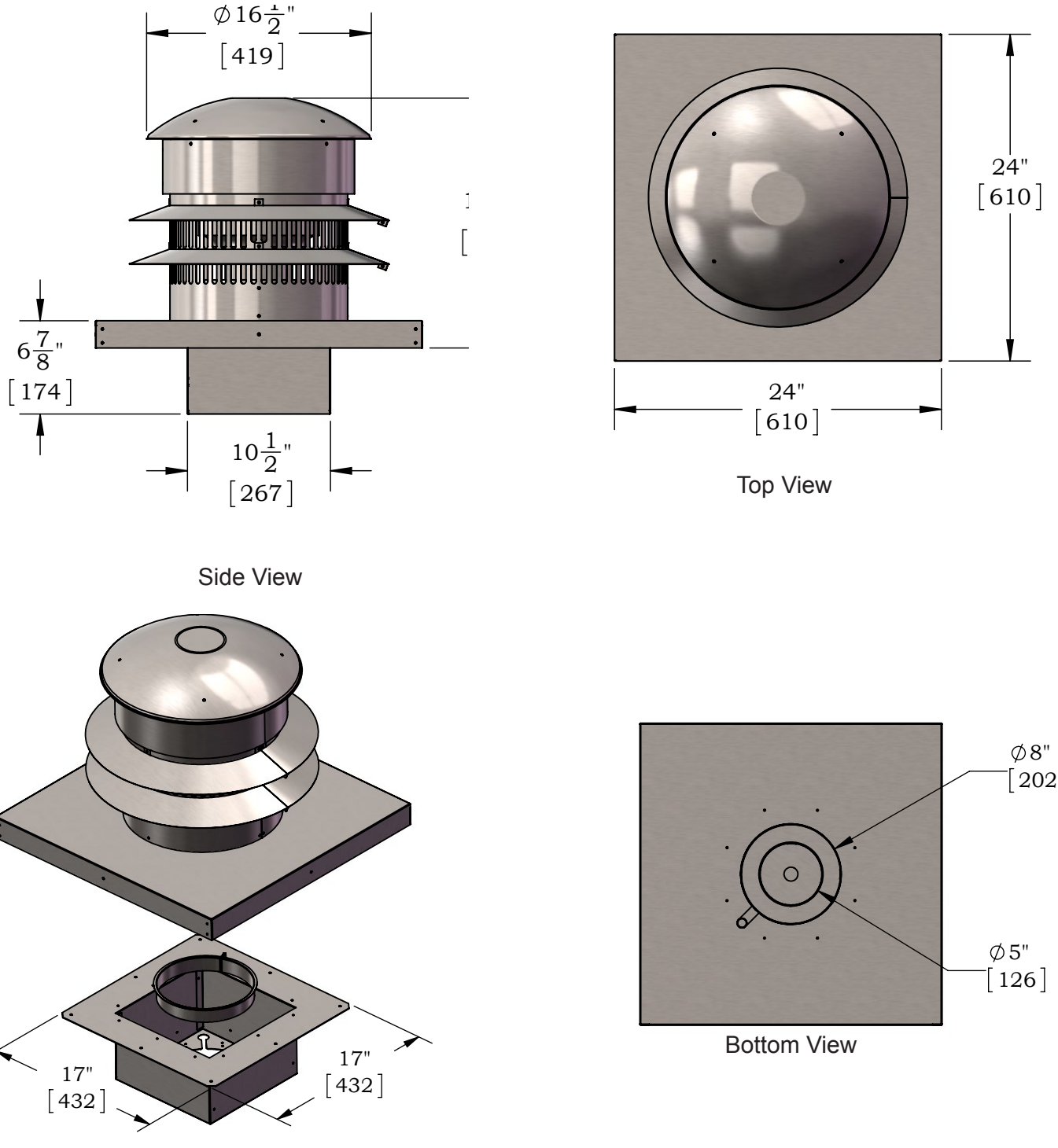


Figure 1. *PVVEX58-300 & PVVEX510-300 (Tolerance ± ⅛") [mm]*

Installation

PVVEX510-300 Vertical Power Vent Termination

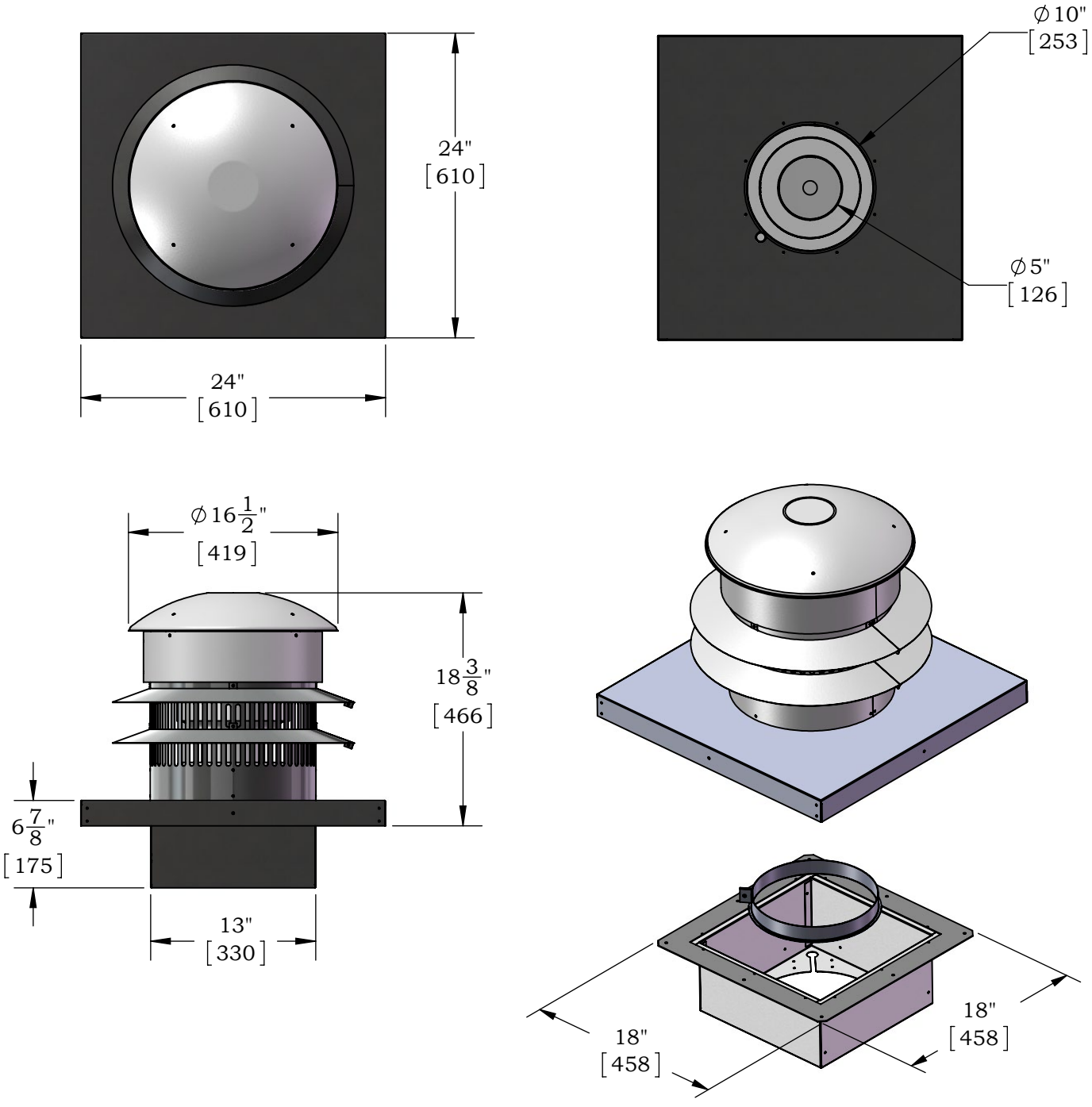


Figure 1a. *PVVEX58-300 & PVVEX510-300 (Tolerance ± ⅛") [mm]*

Installation

Installing the power vent

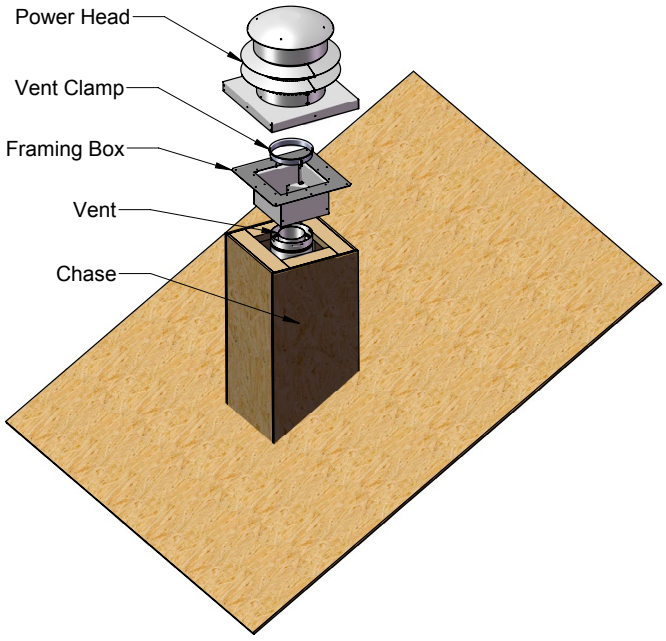


Figure 2. *Power vent components Exploded View*

Step 1: Construct a chase box around the vent penetration with

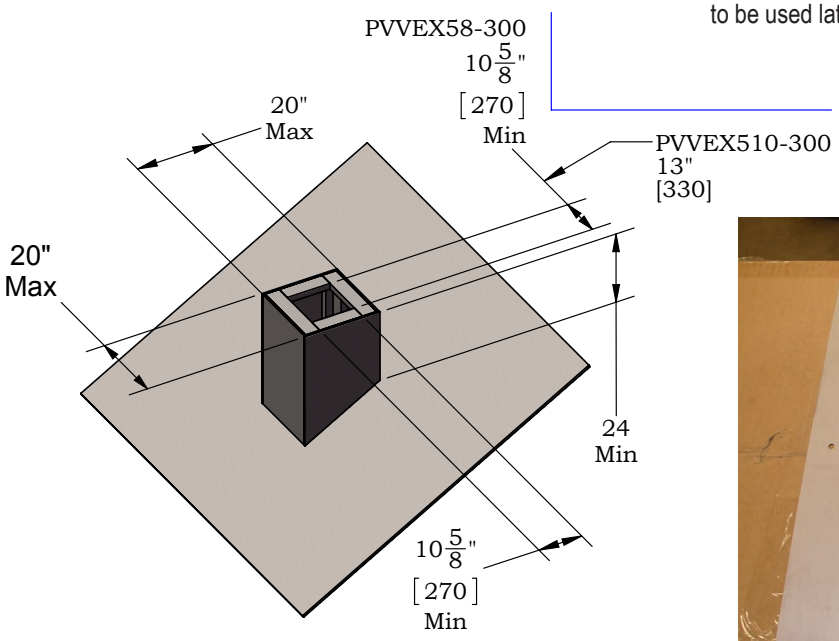


Figure 2a. *Chase box dimensions*

Note: Follow local and/or national code requirements for roof clearances.

Step 2: Install the electrical harness (EPVH-10-100) that will communicate with the Power Vent. Run vent pipe from the fireplace to the chase. Make sure the last section is female end up and is flush with the top of the chase without going above it. See figure 2b.

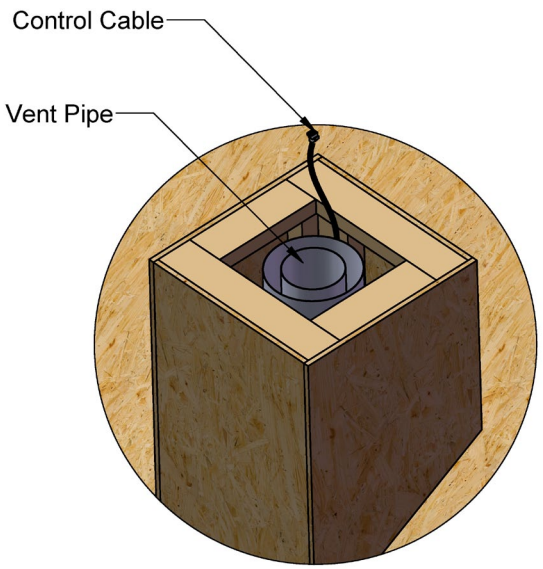


Figure 2b. *Installing the Rough-in Kit.*

Step 3: Remove the last section of vent pipe and put off to the side to be used later. Take the rough in box from the power

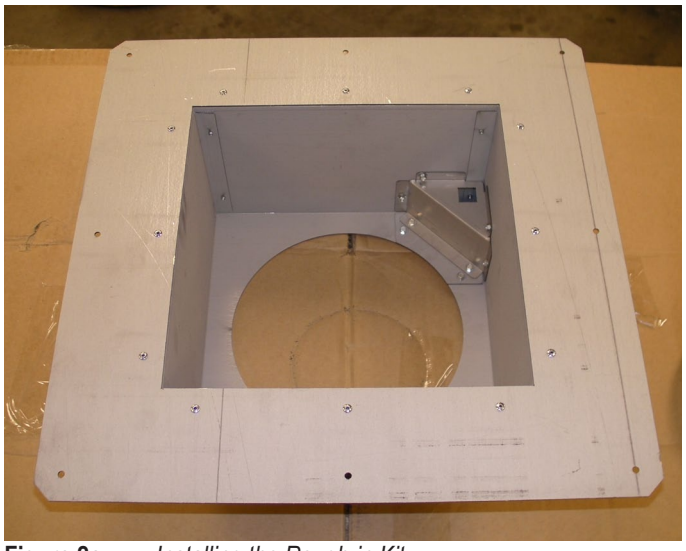


Figure 2c. *Installing the Rough-in Kit.*

Installation

Step 4: Unscrew 6 screws securing the control cable cover and remove it.

Figure 2d. Unscrewing control cable cover

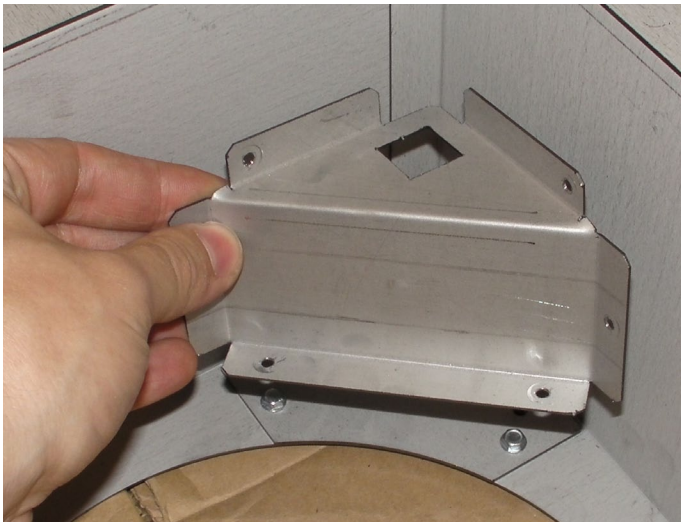


Figure 2e. Removing control cable cover

Step 5: Unscrew 2 screws securing strain relief plate and remove it.

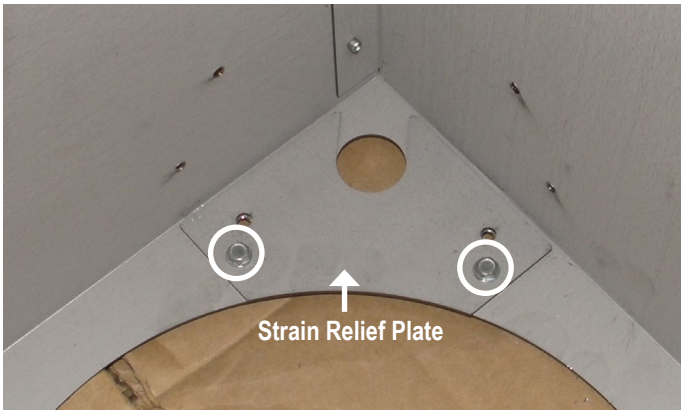


Figure 2f. Removing strain relief plate.

Step 6: Loosen nut on the strain relief of the control cable. Pass control cable through slot in rough in box making sure the nut stays is on the opposite side of the rough in box as the strain relief.

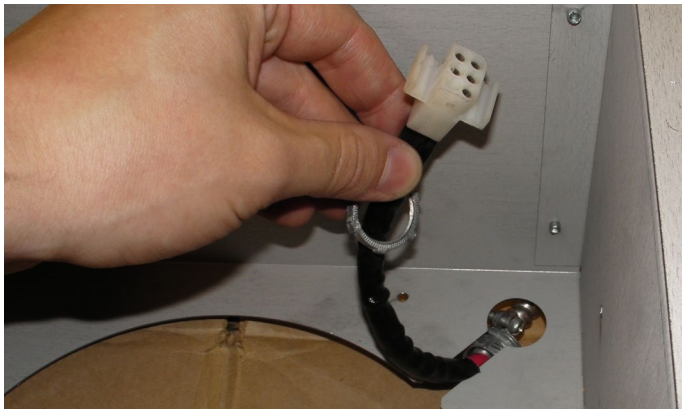


Figure 2g.

Step 7: Push the strain relief through the hole in the roughin box.

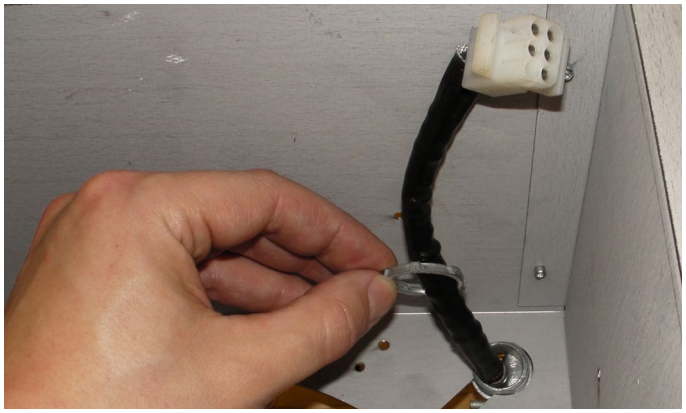


Figure 2h.

Step 8: Reinstall the strain relief plate. Make sure the strain relief nut is above the strain relief plate.

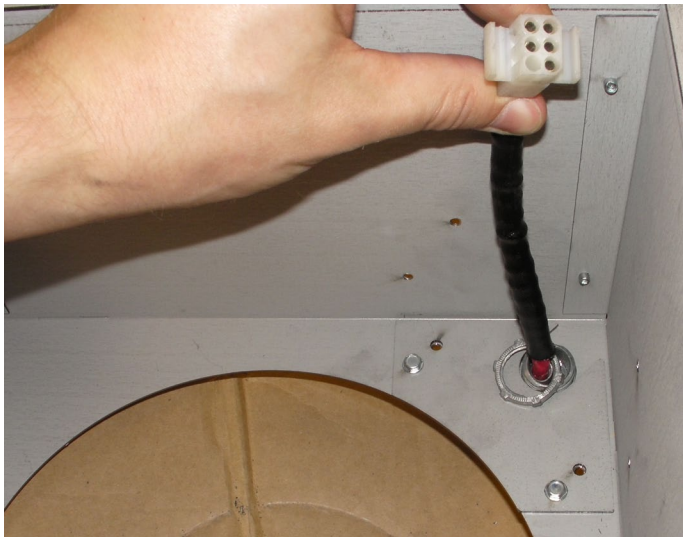


Figure 2i.

Installation

Step 9: Tighten the nut on the strain relief.

Figure 2j.

Step 10: Push the molex connector of the control cable through the hole in the control cable cover. Make sure the molex clicks in place so it does not fall out.

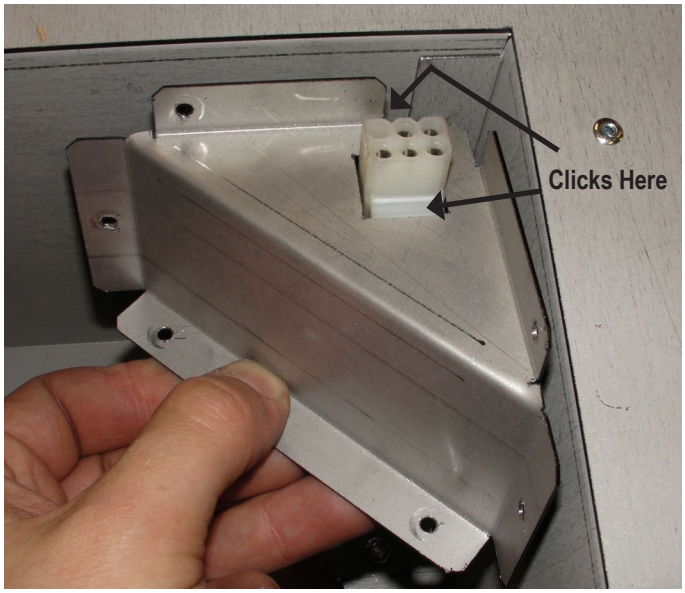


Figure 2k.

Step 11: Screw control cable cover back in place.

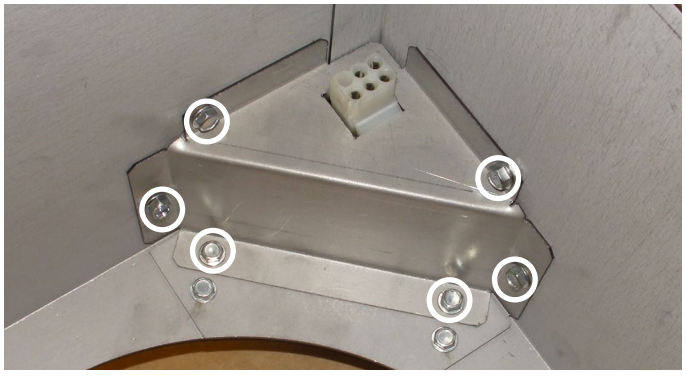


Figure 2l.

Step 12: Drop the rough in box over top of and inside the Chase.

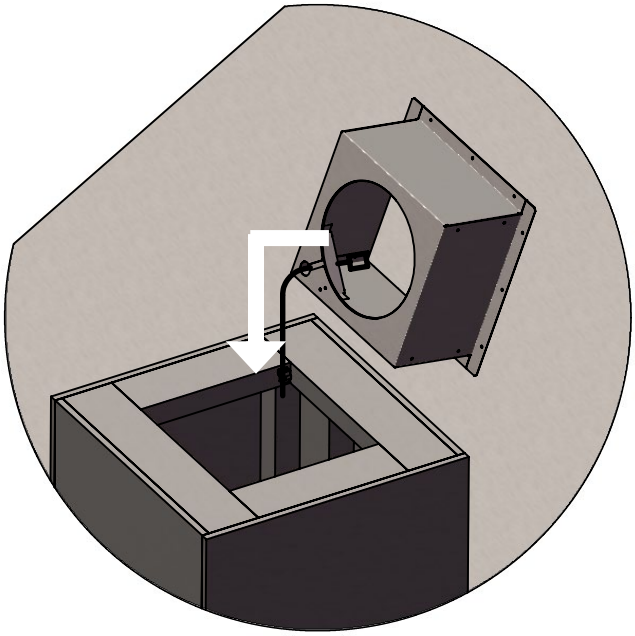


Figure 2m.

Step 13: Take the last section of pipe and install the vent clamp around the pipe. The bottom of the band should be 6 3/8" from the top of the pipe. Tighten the clamp using the supplied nut and screw.

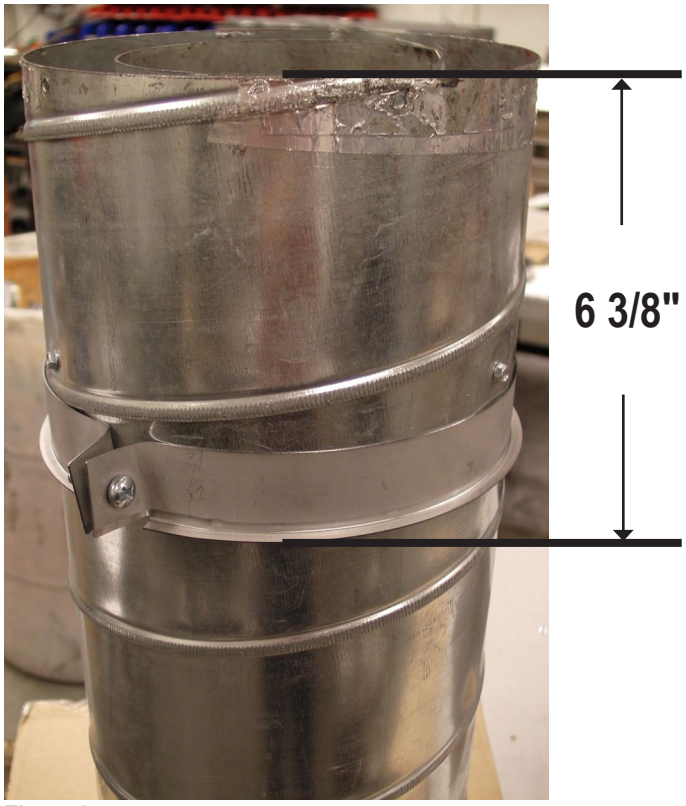


Figure 2n.

Installation

Step 14: Drop pipe down into the frame box. The pipe should be flush with the top of the frame box. Secure pipe connection below.

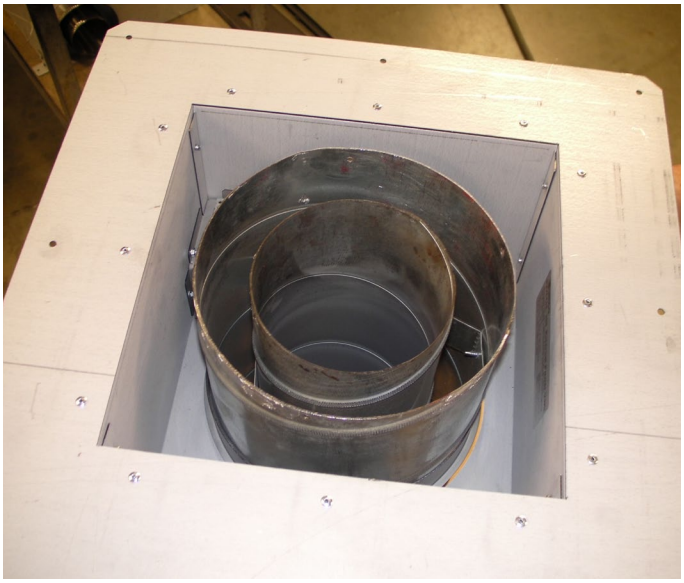


Figure 2o.

Step 15: Connect power cable of termination to the molex of the control cable.

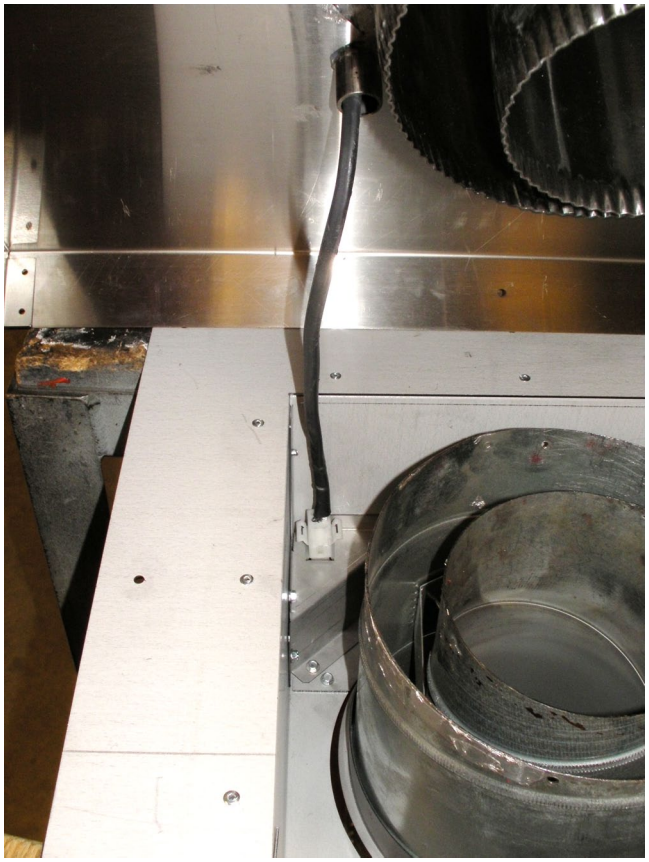


Figure 2p.

Step 16: Place power vent over chase and fasten with 4 screws on the vertical sides of the base plate. Silicone of seal the base plate in any location necessary to keep the structure of the building free of water or moisture.

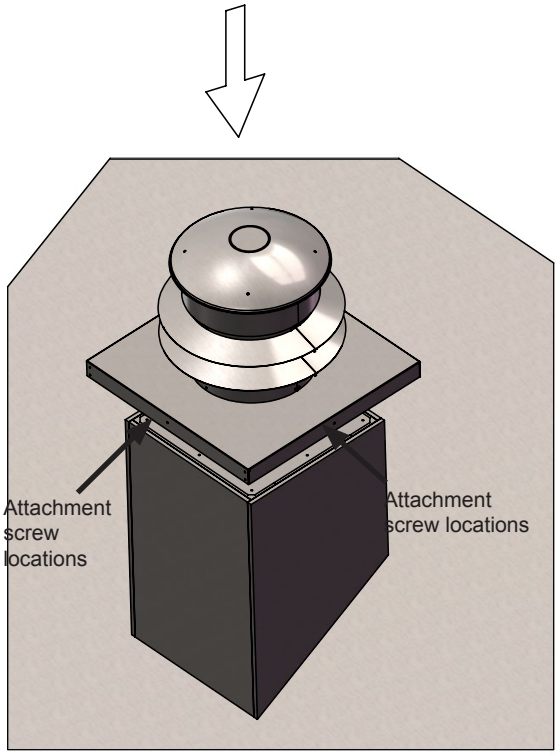


Figure 2q. *Installing the Rough-in Kit.*

Wiring Installation

Conduit & Wiring clearances

Connect the power vent harness as outlined. Connect the wiring to the fireplace as outlined in the schematic shown in **figure 4**. Ensure that the proper clearances are maintained for the wiring and conduit. When installing the wiring it must never run above the vent pipe and it must be at least 1" clear of all venting and other hot surfaces.

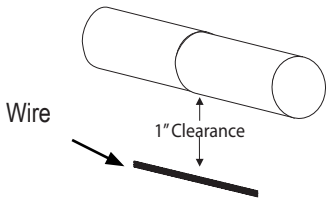


Figure 3. Conduit and Wiring

Installation

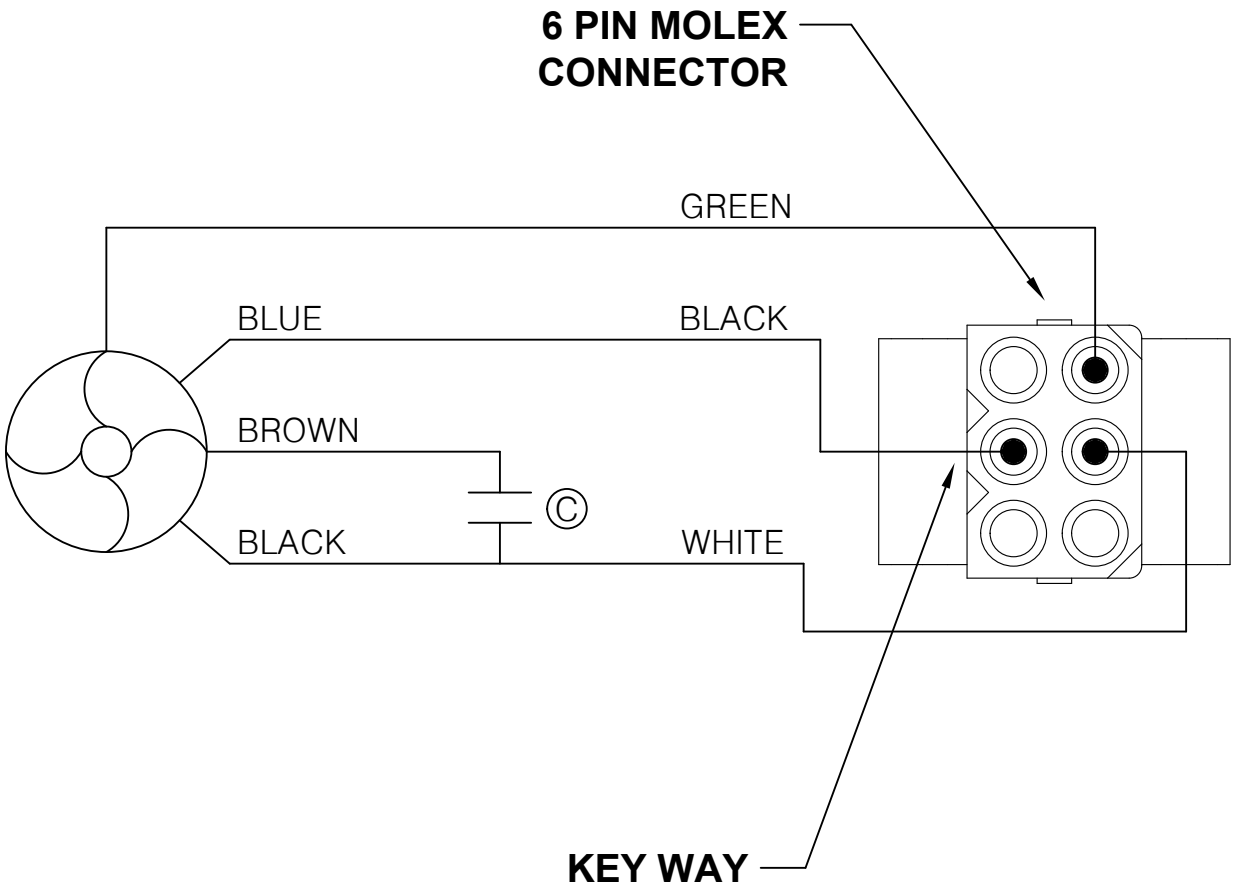
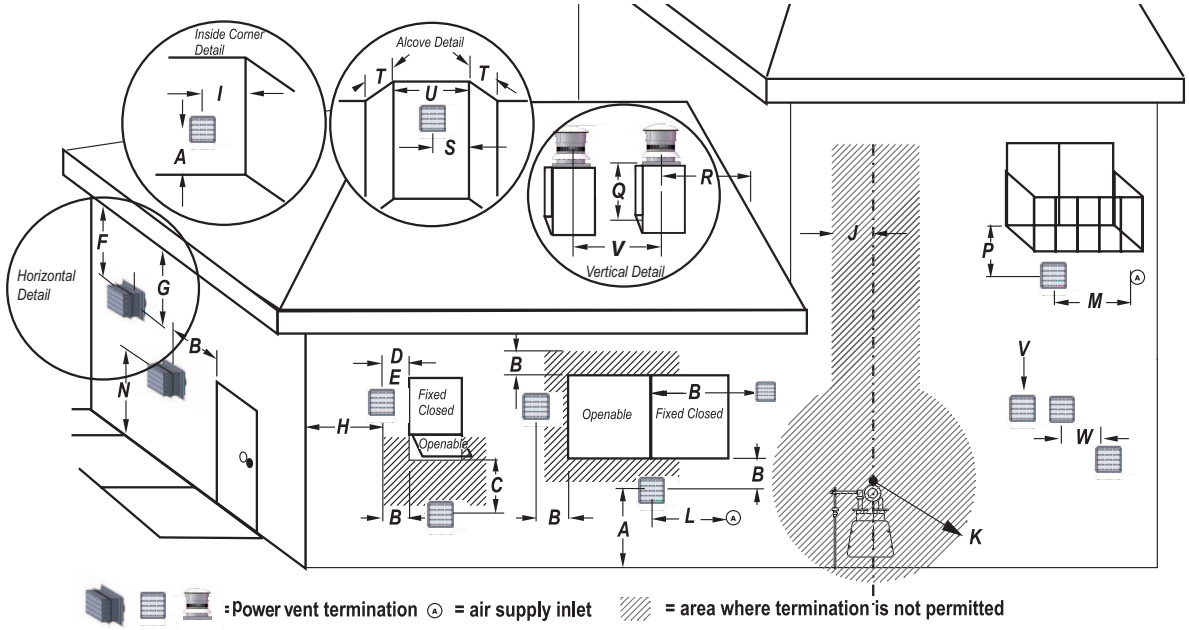


Figure 4. *Power Vent Wiring Diagram*

Installation

Power Vent Locations



	Location	Canada*	USA**
A	*clearance to the termination frame above grade, veranda, porch, deck, or balcony*	30 inches	30 inches
B	*clearance to top of doors or operable windows*	12 inches	12 inches
C	*clearance to sides or bottom of door or operable windows*	4 feet	4 feet
D	*clearance to permanently closed window when installed with approved glass penetration termination*	0	0
E	*clearance to permanently closed window Recommended to prevent condensation*	30 inches	30 inches
F	*clearance to ventilated soffit located within a horizontal distance to 24 inches from centerline of termination*	22 inches	22 inches
G	*clearance to unventilated soffit*	30 inches	30 inches
H	*clearance to outside corner*	30 inches	30 inches
I	*clearance to inside corner*	30 inches	30 inches
J	*clearance to each side of the vertical centerline of a metre or regulatory assembly to a maximum vertical distance of 15ft*	3 feet	3 feet
K	*clearance to service regulator vent outlet*	3 feet	3 feet
L	*clearance to non mechanical air supply inlet to the building or combustion air inlet to other appliance for appliance <= 100.000 BTU/H (30 KW)*	12 inches	4 feet
L	*clearance to non mechanical air supply inlet to the building or combustion air inlet to other appliance for appliance > 100.000 BTU/H (30 KW)*	6 feet	4 feet
M	*clearance to forced air supply inlet*	6 feet	3 feet above air inlet
N+	*clearance above paved sidewalk or paved driveway located on public property*	7 feet	7 feet
P++	*clearance under veranda, porch, deck, or balcony*	30 inches	30 inches
Q	*clearance above roof*	See Fireplace Installation Guide	See Fireplace Installation Guide
R	*clearance to adjacent walls and neighboring buildings*	See Fireplace Installation Guide	See Fireplace Installation Guide
S	*clearance from corner in recessed location*	30 inches	30 inches
T	*Maximum depth of recessed location*	48 inches	48 inches
U	*Maximum width for back wall of recessed location*	60 inches	60 inches
V	*Horizontal clearance between two terminations that are level*	See Fireplace Installation Guide	See Fireplace Installation Guide
W	*Horizontal clearance (centre to centre) between two terminations that are not level*	30 inches	30 inches

* Based on CGA B149.1 Natural Gas and Propane installation code. Local codes may vary, please check with local regulatory agency.
** Based on ANSI Z223.1/NFPA 54 National Fuel Gas Code. Local codes may vary, please check with local regulatory agency.
+ A vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serve both dwellings.
++ Only permitted if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

Service

Capacitor Removal and Servicing

Capacitor Replacement [REC1252]

Turn off power and gas before servicing.

Step 1: Remove the 4 outer screws that fasten the top cover to the termination. Remove the cover.

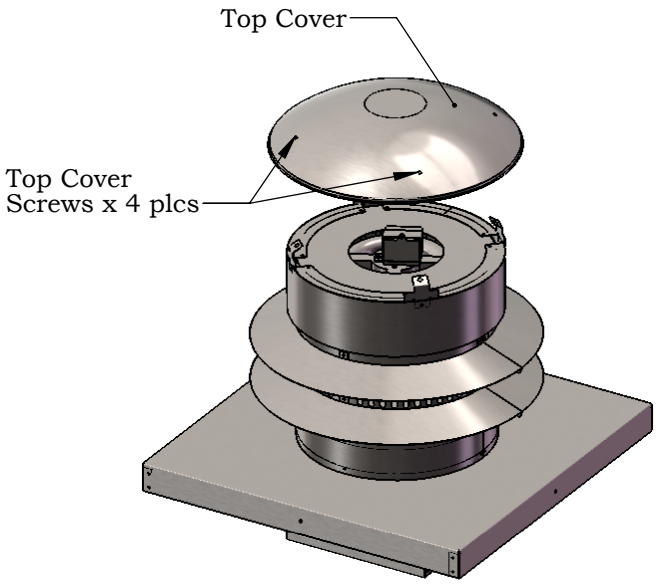


Figure 5.

Step 2: Cut zap straps.

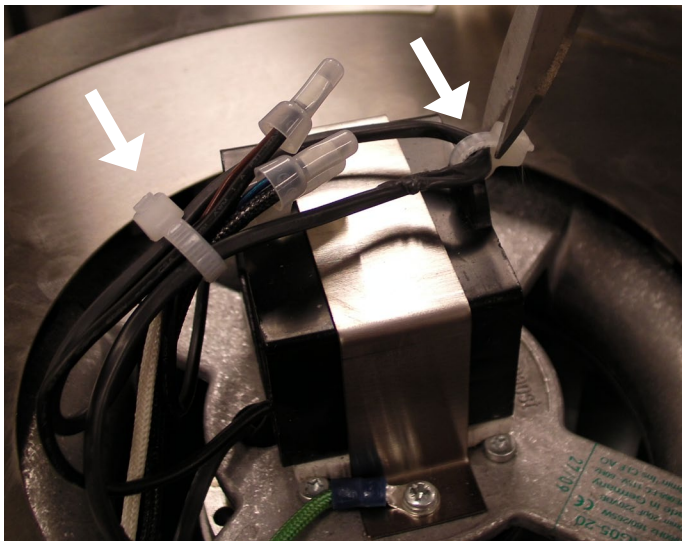


Figure 5a.

Step 3: Unscrew ground wire/capacitor bracket from motor.

WARNING: Save this screw.

Figure 5b.

Step 4: Cut brown wire from motor and black wire from capacitor.

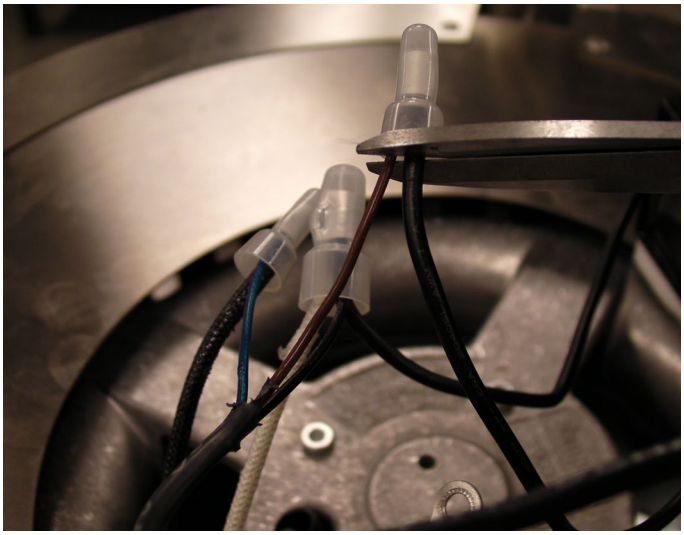


Figure 5c.

Step 5: Cut black fibre wire from power cable and blue wire from motor.

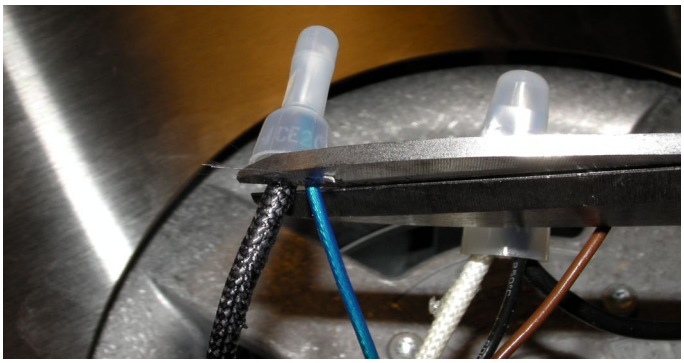


Figure 5d.

Service

Step 6: Cut white fibre from power cable, black wire from capacitor and black wire from motor.

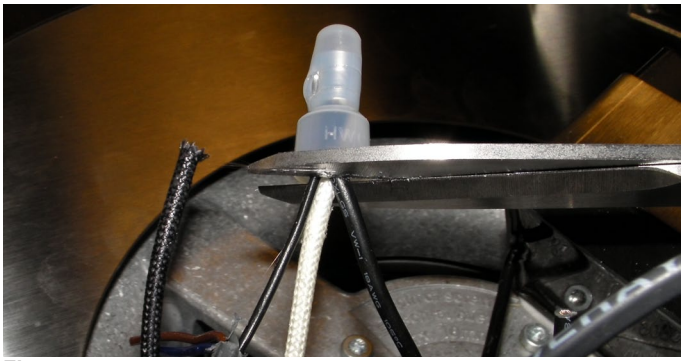


Figure 5e.

Step 7: Remove and dispose of old capacitor and open REC1252

Figure 5f. *REC1252*

Step 8: Strip ends of all cut wires and new capacitor. Screw new capacitor and ground wire to the motor using the existing screw you saved.

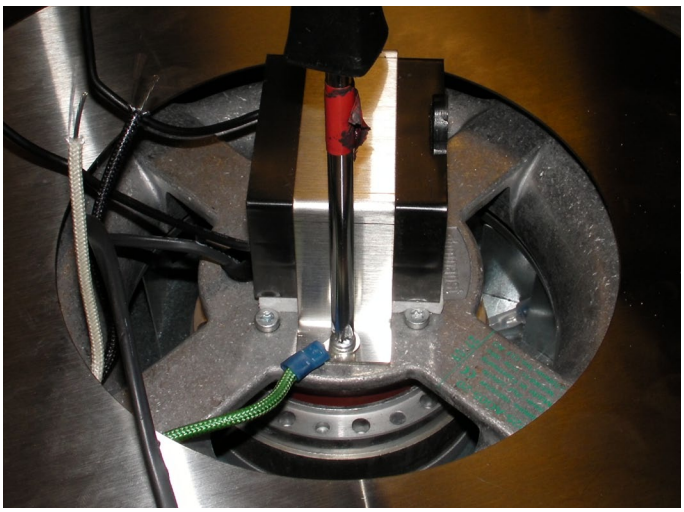


Figure 5g.

Step 9: Using a small bell connector, connect the blue wire from the motor to the black fibre wire from the power cable.

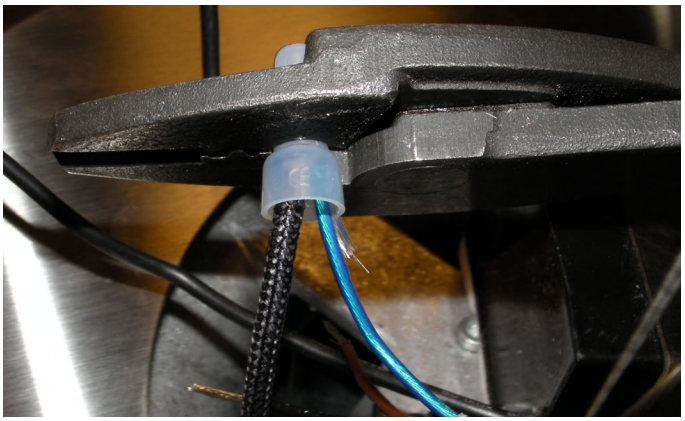


Figure 5h.

Step 10: Using the large bell connector, attach the white fibre wire from the power cable to the black wire from the motor and a black wire from the capacitor.

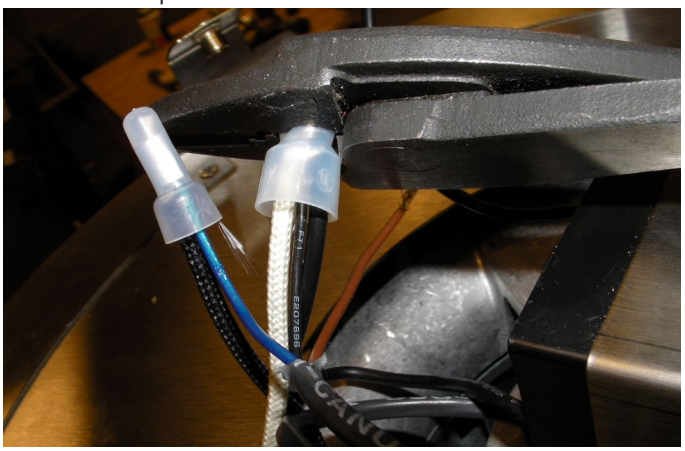


Figure 5i.

Step 11: Using the other small bell connector attach the brown wire from the motor to the other black wire from the capacitor.

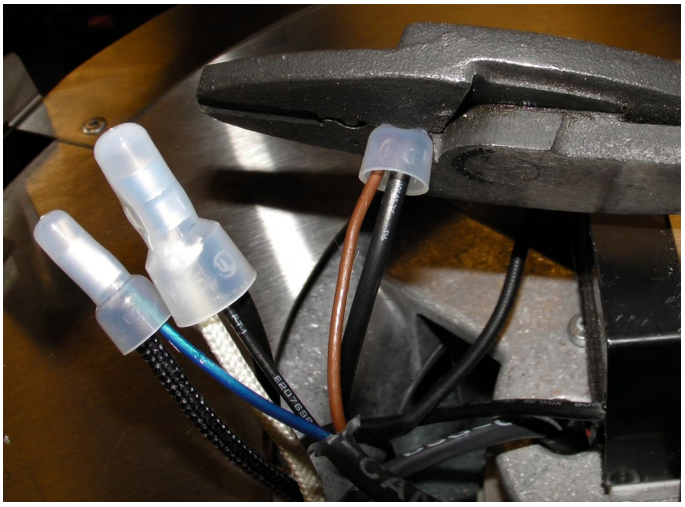


Figure 5j.

Service

Step 12: Zap strap wires together in a neat bunch so that no wires can fall into the motor.

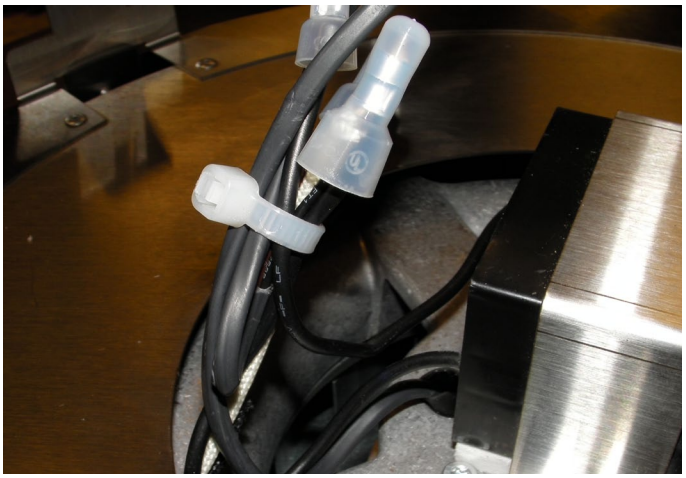


Figure 5k.

Step 13: Zap strap wires to loop in the top of the capacitor.

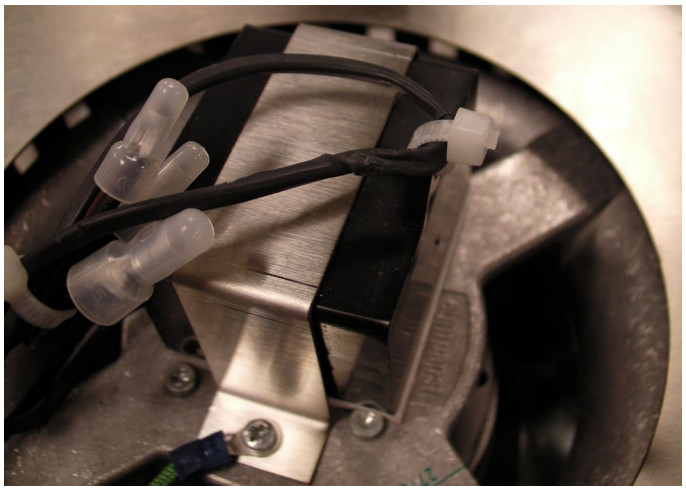


Figure 5l.

Step 14: Test the power vent and make sure it is working properly. When looking down at the top of the motor the fan should be spinning counterclockwise. If it is spinning the wrong way or not at all it is wired incorrectly. Put the top cover back on using the supplied replacement screws.

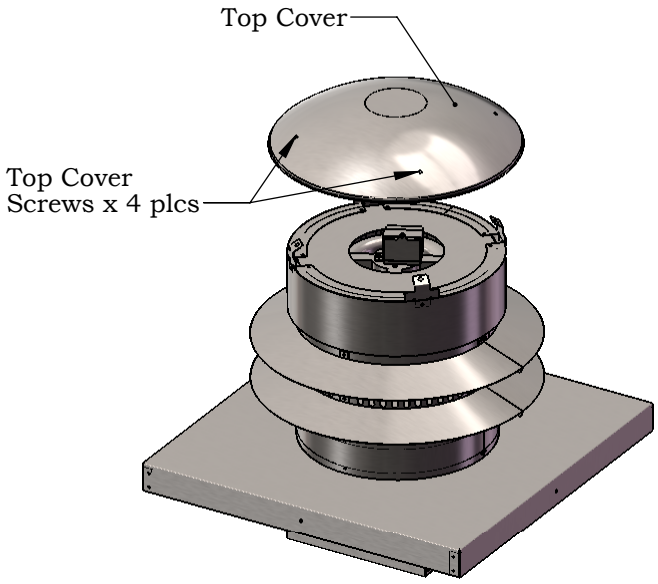


Figure 5m.

Service

Motor and Capacitor Replacement

[REC 1253]

Turn off power and gas before servicing.

Step 1: Remove the 4 outer screws that fasten the top cover to the termination. Remove the cover.

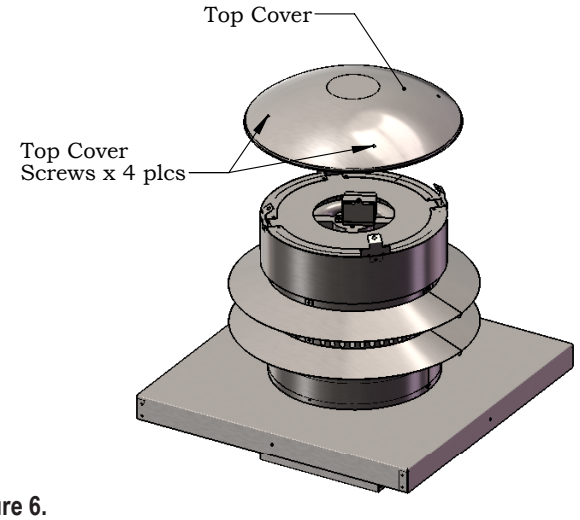


Figure 6.

Step 2: Remove the 4 outer screws that fasten the wind baffle to the termination. Lower the wind baffle to rest on the rain skirt.

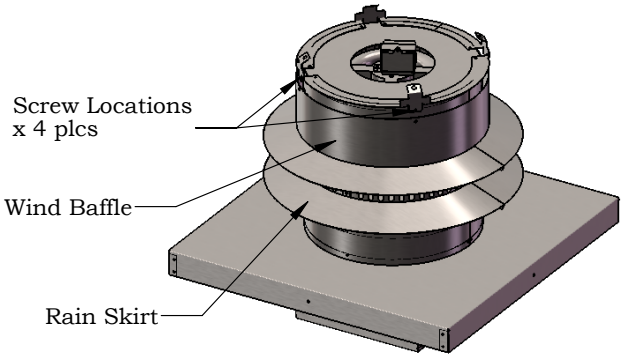


Figure 6a.

Step 3: Remove the 5 outer screws that fasten the top separator to the termination. Remove the top separator.

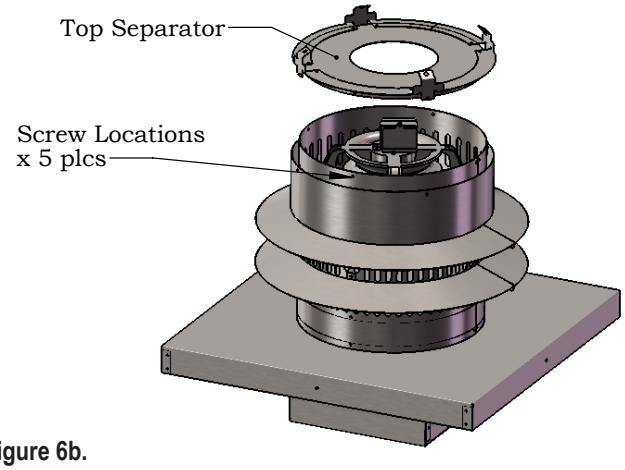


Figure 6b.

Step 4: Cut 4 zap straps

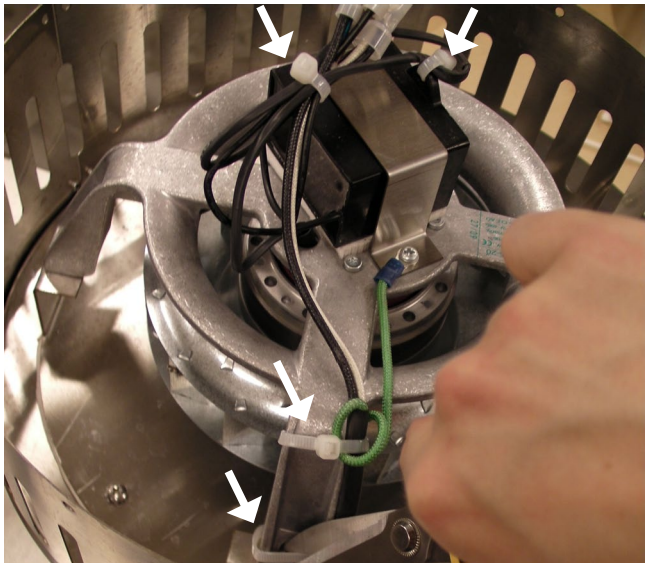


Figure 6c.

Step 5: Remove the ground screw holding the ground wire and capacitor.

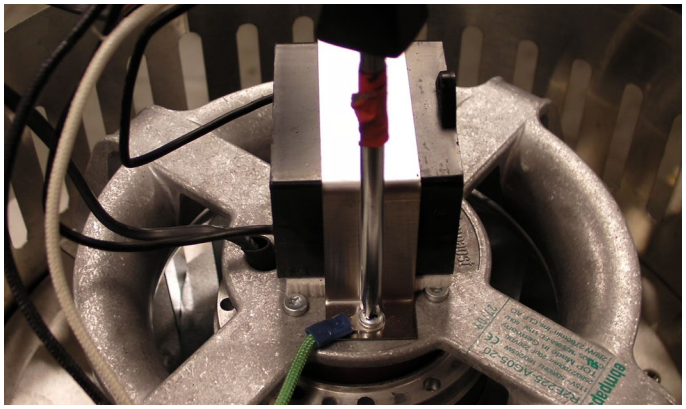


Figure 6d.

Step 6: Cut the black fibre wire from the power cable.

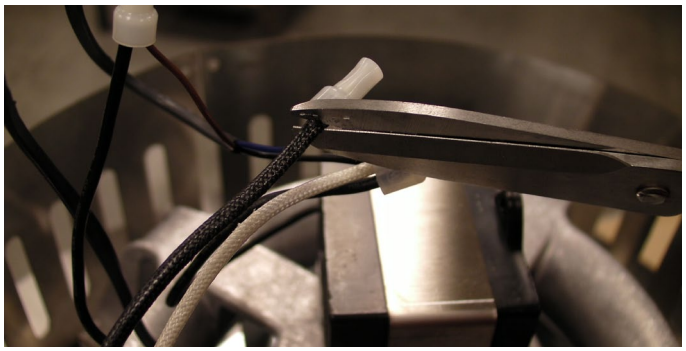


Figure 6e.

Service

Step 7: Cut the white fibre wire from the power cable.

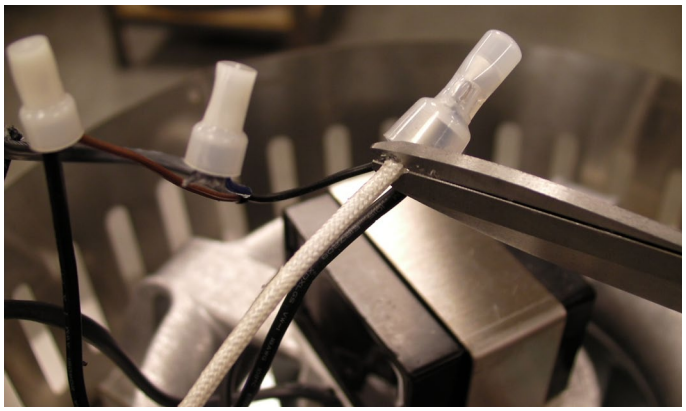


Figure 6f.

Step 8: Remove 4 screws securing the motor mounting plate.

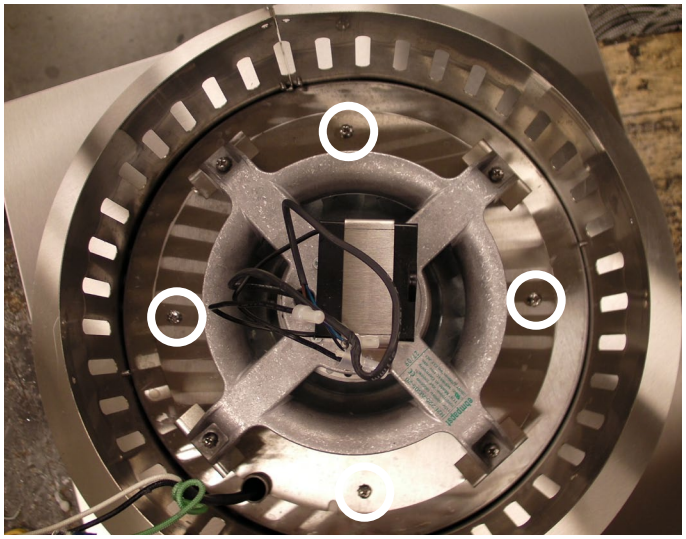


Figure 6g.

Step 9: Lift out motor and capacitor.

Figure 6h.

REC1253

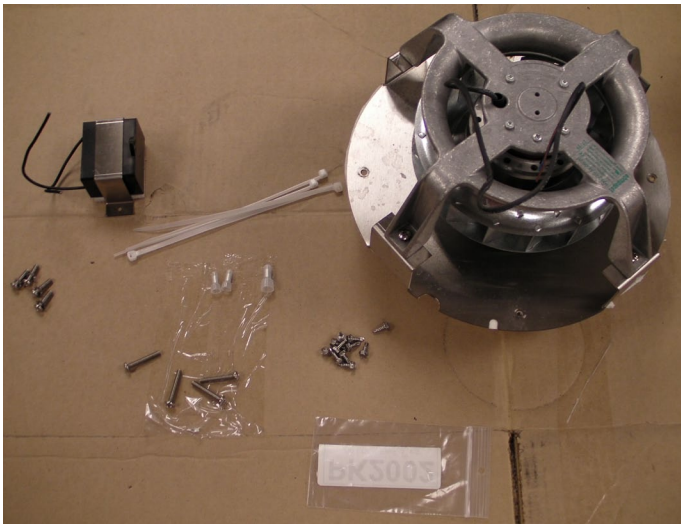


Figure 6i.

Step 10: Drop new motor assembly into the power vent and screw with supplied 4 screws and star washers. Line up cut out in motor mounting plate with electrical conduit.

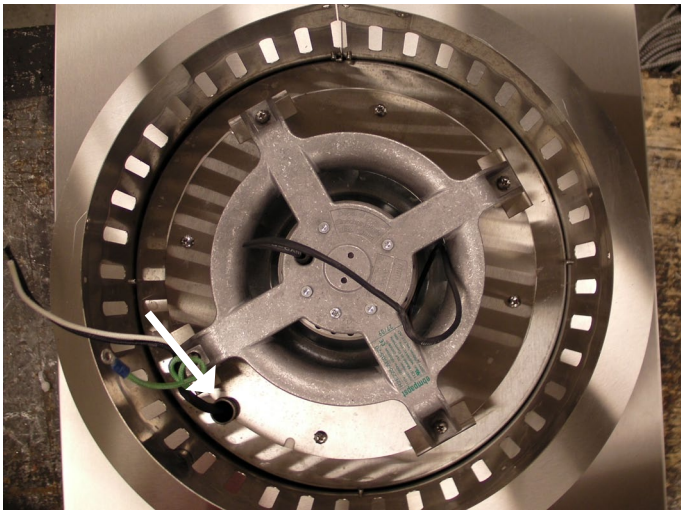


Figure 6j.

Step 11: Remove the ground wire screw from the motor. **NOTE**: Save this screw for later.

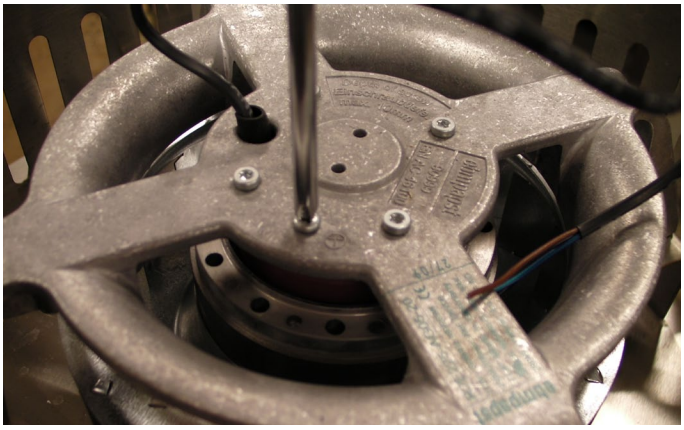


Figure 6k.

Service

Step 12: Using the ground screw, screw the capacitor bracket and the ground wire to the motor.

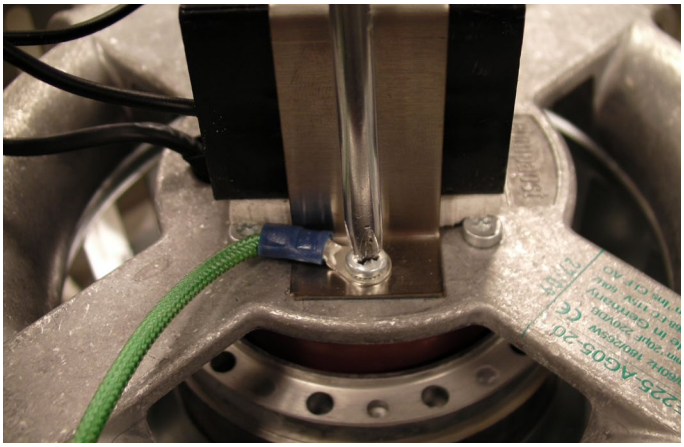


Figure 6l.

Step 13: Strip the ends of all the wires. Using the large bell connector, connect the white fibre wire from the power cable to the black wire from the motor and one of the black wires from the capacitor.

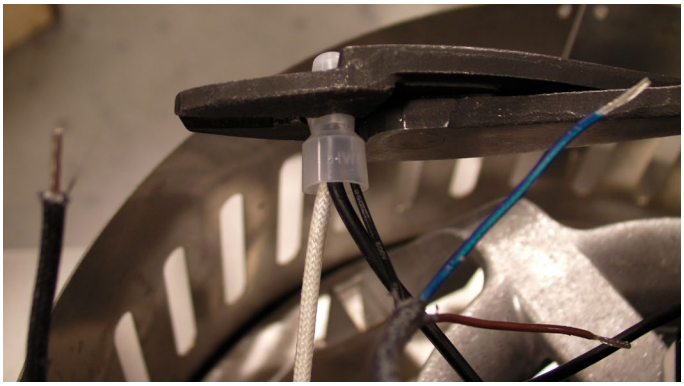


Figure 6m.

Step 14: Using a small bell connector, connect the black fibre wire from the power cable to the blue wire of the motor.

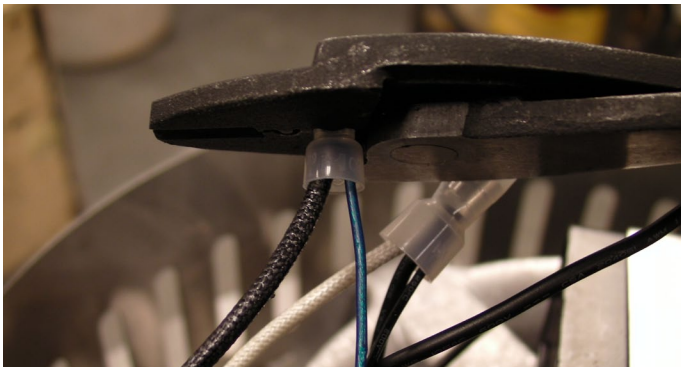


Figure 6n.

Step 15: Using the other small bell connector, connect the other black wire from the capacitor to the brown wire from the motor.

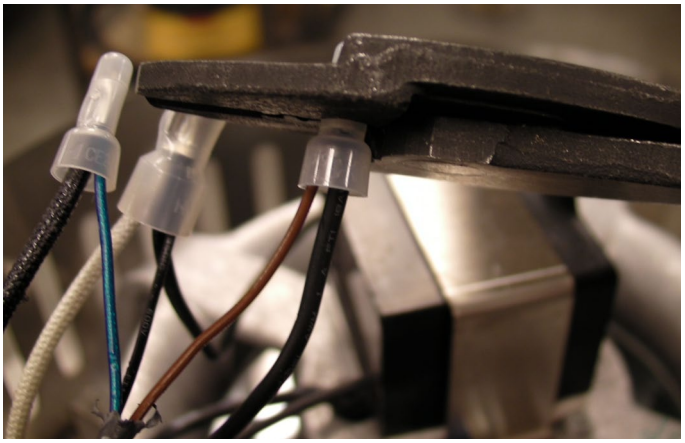


Figure 6o.

Step 16: Using a zap strap to bundle the wires neatly together.

Figure 6p.

Step 17: Using another zap strap, secure the bundle to the capacitor.

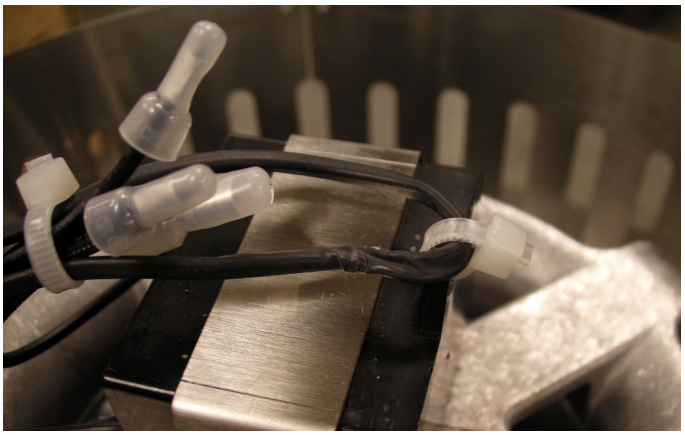


Figure 6q.

Service

Step 18: Using the last two zap straps secure the wires to the leg of the motor. Make sure none of the wires can get caught in the motor.

Figure 6r.

Step 19: Reinstall the top separator with 5 supplied screws.

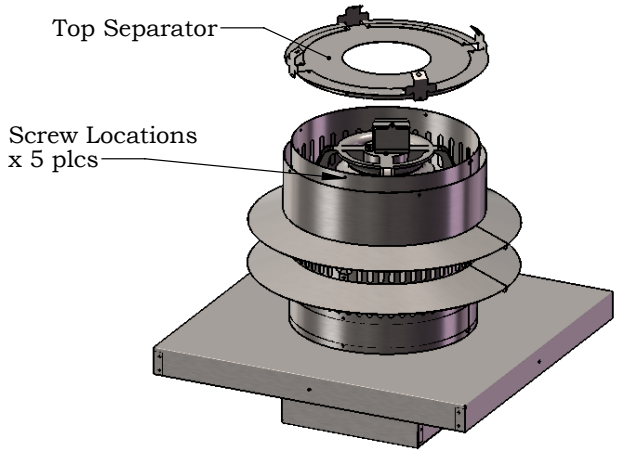


Figure 6s.

Step 20: Reinstall the wind baffle with supplied screws.

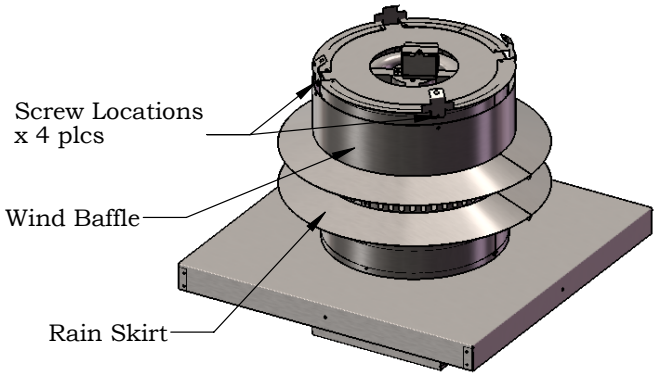


Figure 6t.

Step 21: Test the power vent and make sure it is working properly. When looking down at the top of the motor the fan should be spinning counterclockwise. If it is spinning the wrong way or not at all it is wired incorrectly. Put the top cover back on using the supplied replacement screws.

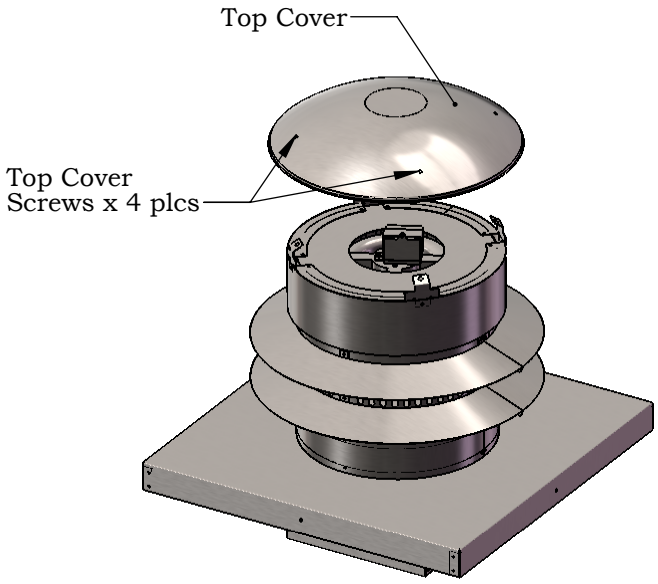


Figure 6u.

Appendix

Appendix A: Warranty

The Warranty

The Companies warrants the Montigo Gas Appliance to be free from defects in materials and workmanship at the time of manufacture. On the Montigo fireplace, there is a ten-year warranty on the firebox and its components, a five-year warranty on the main burner and pilot burner, and a one-year warranty on the gas control valve, fibre logs and Power Vent Module. The Glass, plated / painted finishes, and refractory lining are exempt from the warranty.

Remedy And Exclusions

The coverage of this Warranty is limited to all components of the Gas Appliance manufactured by The Companies.

This Warranty only covers Montigo Gas Appliances installed in the United States or Canada.

If the components of the Gas Appliance covered by this Warranty are found to be defective within the time frame stated (see The Companies right of investigation outlined below). The Companies will, at its option, replace or repair defective components of the Gas Appliance manufactured by The Companies at no charge, and will also pay for reasonable labour costs incurred in replacing or repairing components. If repair or replacement is not commercially practical, The Companies will, at its option, refund the purchase price of the Montigo Gas Appliance.

This Warranty covers only parts and labour as provided above. In no case shall The Companies be responsible for materials, components, or construction which are not manufactured or supplied by The Companies, or for the labour necessary to install, repair or remove such materials, components or construction. All replacement or repair components will be shipped F.O.B. the nearest The Companies factory.

Qualifications To The Warranty

The Gas Appliance Warranty outlined above is further subject to the following qualifications:

(1) The Gas Appliance must be installed in accordance with The Companies installation instructions and local building codes. The Warranty on this Montigo Gas Appliance covers only the component parts manufactured by The Companies. The use of components manufactured by others with this Montigo Gas Appliance could create serious safety hazards, may result in the denial of certification by recognized national safety agencies, and could be in violation of local building codes. This warranty does not cover any damages occurring from the use of any components not manufactured or supplied by The Companies

(2) The Montigo Gas Appliance must be subjected to normal use. The Gas Appliances are designed to burn gas only. Burning conventional fireplace fuels such as wood, coal or any other solid fuel will cause damage to the Gas Appliance, will produce excessive temperatures and will result in a fire hazard.

Limitations On Liability

It is expressly agreed and understood that The Companies sole obligation, and purchaser's exclusive remedy under this Warranty, under any other warranty, expressed or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above.

In no event shall The Companies be responsible for any incidental or consequential damages caused by defects in its products, whether such damage occurs or is discovered before or after replacement or repair, and whether or not such damage is caused by The Companies negligence. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The duration of any implied warranty with respect to this Montigo Gas Appliance is limited to the duration of the foregoing warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above may not apply to you.

Investigation Of Claims Against Warranty

The Companies reserves the right to investigate any and all claims against this Warranty and to decide upon method of settlement.

The Companies Are Not Responsible For Work Done Without Written Consent

The Companies shall in no event be responsible for any warranty work done without first obtaining The Companies written consent.

Dealers Have No Authority To Alter This Warranty

The Companies employees and dealers have no authority to make any warranties nor to authorize any remedies in addition to or inconsistent with those stated above.

How To Register A Claim Against Warranty

In order for any claim under this Warranty to be valid, The Companies must be notified of the claimed defect in writing or by telephone, as soon as reasonably possible after the defect is discovered. Claims against this Warranty in writing should include the date of installation, and a description of the defect.

Other Rights

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

NOTE: *The Companies* as stated above refer to - Canadian Heating Products Inc. and/or Montigo Del Ray Corp.

Canadian Heating Products Inc. and/or Montigo DelRay Corp. reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products.

Appendix

Appendix B: State of Massachusetts

Amendment

(Gas Fireplace / Equipment sold in the State of Massachusetts)
5.08: Modifications to NFPA-54, Chapter 10

(1) Revise NFPA-54 section 10.5.4.2 by adding a second exception as follows:
Existing chimneys shall be permitted to have their use continued when a gas conversion burner is installed, and shall be equipped with a manually reset device that will automatically shut off the gas to the burner in the event of a sustained back-draft.

(2) Revise 10.8.3 by adding the following additional requirements:
(a) For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

1. INSTALLATION OF CARBON MONOXIDE DETECTORS. At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gas fitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors
a. In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.
b. In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

2. APPROVED CARBON MONOXIDE DETECTORS. Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.

3. SIGNAGE. A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, “GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS”.

4. INSPECTION. The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.
(b) EXEMPTIONS: The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

1. The equipment listed in Chapter 10 entitled “Equipment Not Required To Be Vented” in the most current edition of NFPA 54 as adopted by the Board; and
2. Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

(c) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM PROVIDED. When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:
1. Detailed instructions for the installation of the venting system design or the venting system components; and
2. A complete parts list for the venting system design or venting system.

(d) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM NOT PROVIDED. When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies “special venting systems”, the following requirements shall be satisfied by the manufacturer:
1. The referenced “special venting system” instructions shall be included with the appliance or equipment installation instructions; and
2. The “special venting systems” shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.
(e) A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

(3) After NFPA-54 section 10.10.4.2 add a new section 10.10.4.3 as follows:
When more than four gas appliances are to be vented through a common gas vent or common horizontal vent manifold, a plan of the proposed vent installation shall be submitted to the Inspector and the serving gas supplier for review and approval.

Extraction from: Massachusetts Rules and Regulations
5.00: Amendments To 2002 Edition Of ANSI Z223.1-NFPA-54

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